

AMENDMENTS TO THE CLAIMS

C1 1. (currently amended) A method for deleting a nucleic acid sequence from a DNA molecule that has been introduced into an animal cell, whereby said sequence is deleted in a regulatable manner utilizing a regulatable promoter, said DNA molecule comprising a recombinase site, a regulatable promoter[,] operably linked to a recombinase gene, a foreign DNA and a recombinase site, the method comprising growing said cell such that the regulatable promoter is active, said recombinase gene is expressed in the specified tissue and said foreign DNA is deleted.

2. (previously amended) The method of claim 1, wherein the DNA molecule further comprises a gene which is desired to be expressed in the cell.

3. (original) The method of claim 1, wherein said foreign DNA is heterologous DNA.

4. (original) The method of claim 2, wherein said foreign DNA is heterologous DNA.

5. (previously amended) The method of claim 1, wherein said foreign DNA is a wild-type allele or fragment thereof of a gene.

6. (previously amended) The method of claim 2, wherein said foreign DNA is a wild-type allele or fragment thereof of a gene.

7. (canceled).

8. (canceled).

9. (canceled).

10. (canceled).

11. (canceled).

12. (canceled).

13. (canceled).

14. (canceled).

15. (canceled).

16. (canceled).

17. (canceled).

18. (canceled).

19. (canceled).

C2 20. (currently amended) A nucleic acid molecule comprising in sequential order (a) a recombinase site, (b) a [tissue-specific] regulatable promoter[, operably linked to (c) a recombinase gene, (d) a foreign DNA and (e) a recombinase site.

21. (original) The molecule of claim 20, wherein said recombinase site is selected from the group consisting of *loxP* and *FRT*.

22. (original) The molecule of claim 20, wherein said recombinase gene is selected from the group consisting of *Cre* and *FLP*.

23. (original) The molecule of claim 21, wherein said recombinase gene is selected from the group consisting of *Cre* and *FLP*.

24. (previously amended) The molecule of claim 20, wherein said molecule further comprises a gene which is desired to be expressed in a cell.

25. (canceled).

26. (canceled).

27. (canceled).

28. (canceled).

29. (canceled).

30. (canceled).

31. (canceled).

C3 32. (currently amended) The [method] nucleic acid molecule of claim 20, wherein said foreign DNA is a wild-type allele or fragment thereof of a gene.

33. (canceled).

34. (canceled).

35. (canceled).

36. (canceled).

37. (canceled).

38. (previously added) The method of claim 1 wherein the cell is part of a tissue and the regulatable promoter is a promoter specifically expressed in said tissue.

39. (previously added) The method of claim 38 wherein the DNA molecule further comprises a gene which is desired to be expressed in the tissue.

40. (previously added) The method of claim 38, wherein said foreign DNA is a wild-type allele or fragment thereof of a gene.

41. (previously added) The method of claim 38, wherein said foreign DNA is heterologous DNA.

42. (previously added) The method of claim 38 wherein said tissue is male or female gametic tissue.

C4 43. (new) A method for deleting a nucleic acid sequence from a DNA molecule that has been introduced into a mouse cell, whereby said sequence is deleted in a regulatable manner utilizing a regulatable promoter, said DNA molecule comprising in sequential order a recombinase site, a regulatable promoter operably linked to a recombinase gene, a foreign DNA and a recombinase site, the method comprising growing said cell such that the regulatable

promoter is active, said recombinase gene is expressed in the specified tissue and said foreign DNA is deleted.

44. (new) The method of claim 43, wherein the DNA molecule further comprises a gene which is desired to be expressed in the cell.

45. (new) The method of claim 44, wherein said foreign DNA is heterologous DNA.

46. (new) The method of claim 44, wherein the promoter is specific to the male or female gamete.

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cont 47. (new) The method of claim 43, wherein the introduction of the DNA molecule into an organism produces a transgenic mouse and the foreign DNA is deleted during gametogenesis in the mouse.

48. (new) The method of claim 47, wherein said foreign DNA is heterologous DNA.

49. (new) A transgenic mouse comprising a nucleic acid molecule comprising in sequential order (a) a recombinase site, (b) a regulatable promoter operably linked to (c) a recombinase gene, (d) a foreign DNA and (e) a recombinase site.
